

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2004-NM-11-AD; Amendment 39-13508; AD 2004-05-13]

RIN 2120-AA64

Airworthiness Directives; Bombardier Model DHC-8-401 and -402 Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that is applicable to certain Bombardier Model DHC-8-401 and -402 airplanes. This action requires a records review to determine the repair/modification status of the airplane, and follow-on and corrective actions as necessary. This action is necessary to prevent cracks in the lower fuselage skin due to fatigue damage in the vicinity of the Number 2 VHF antenna, which could result in rapid decompression of the airplane. This action is intended to address the identified unsafe condition.

DATES: Effective March 25, 2004.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of March 25, 2004.

Comments for inclusion in the Rules Docket must be received on or before April 9, 2004.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 2004-NM-11-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9 a.m. and 3 p.m., Monday through Friday, except Federal holidays. Comments may be submitted via fax to (425) 227-1232. Comments may also be sent via the Internet using the following address: 9-anm-iarcomment@faa.gov. Comments sent via the Internet must contain "Docket No. 2004-NM-11-AD" in the subject line and need not be submitted in triplicate. Comments sent via fax or the Internet as attached electronic files must be formatted in Microsoft Word 97 or 2000 or ASCII text.

The service information referenced in this AD may be obtained from Bombardier, Inc., Bombardier Regional Aircraft Division, 123 Garratt Boulevard, Downsview, Ontario M3K 1Y5, Canada. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, New York Aircraft Certification Office, 1600

Stewart Avenue, Westbury, New York; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: David Lawson, Aerospace Engineer, Airframe and Propulsion Branch, ANE-171, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Westbury, New York 11590; telephone (516) 228-7327; fax (516) 794-5531.

SUPPLEMENTARY INFORMATION: Transport Canada Civil Aviation (TCCA), which is the airworthiness authority for Canada, notified the FAA that an unsafe condition may exist on certain Bombardier Model DHC-8-401 and -402 airplanes. TCCA advises that, during an A-check on an affected airplane, an 8-inch crack was discovered on the fuselage skin in the vicinity of the forward Number 2 very high frequency (VHF) antenna. Further investigation revealed cracking on four of the eight cleats attaching the internal antenna support structure. Since the original report, cracked cleats were found on additional airplanes. Cracking of the fuselage skin, if not corrected, could result in rapid decompression of the airplane.

Explanation of Relevant Service Information

Bombardier approved Repair Drawing (RD) RD8/4-53-317, Issue 2, on December 13, 2002. The RD describes procedures for a temporary repair of cracks in the right-hand forward center fuselage skin panel at stringer 32S between stations X71.8 and X94.8. The repair involves cutting away damaged skin, replacing any other damaged structure with new parts, performing a detailed inspection for any remaining cracks, installing an external repair doubler with filler, and reprotecting bare areas.

Bombardier approved Modification Summary (ModSum) Package IS4Q5300001, Revision B, on March 17, 2003. The modification involves installing an external reinforcement doubler and replacing brackets at the Number 2 VHF antenna installation.

Bombardier approved Repair Drawing RD8/4-53-328, Issue 1, approved December 13, 2002, which describes procedures for replacing the support cleats with new cleats, part number (P/N) 85307891, at stringers 32S and 33, between stations X71.8 and X94.8.

Bombardier also approved ModSum 4-113458, Revision B-1, on September 17, 2003, which describes procedures for reinforcing the Number 2 VHF antenna support structure.

Bombardier issued Service Bulletin 84-53-32, Revision "B," dated November 24, 2003, which provides instructions for incorporating Bombardier ModSum 4-113458.

Accomplishment of the applicable actions specified in the service information is intended to adequately address the identified unsafe condition. TCCA issued Canadian airworthiness directive CF-2003-28, dated November 28, 2003, to ensure the continued airworthiness of these airplanes in Canada.

FAA's Conclusions

This airplane model is manufactured in Canada and is type certificated for operation in the United States under the provisions of § 21.29 of the Federal Aviation Regulations (14 CFR 21.29) and the applicable bilateral airworthiness agreement. Pursuant to this bilateral airworthiness agreement, TCCA has kept the FAA informed of the situation described above. The FAA has examined the findings of TCCA, reviewed all available information, and determined that AD action is necessary for products of this type design that are certificated for operation in the United States.

Explanation of Requirements of Rule

Since an unsafe condition has been identified that is likely to exist or develop on other airplanes of the same type design registered in the United States, this AD is being issued to prevent cracks in the lower fuselage skin due to fatigue damage in the vicinity of the Number 2 antenna, which could result in rapid decompression of the airplane. This AD requires a records review to determine repair/modification status. For airplanes on which neither Repair Drawing RD8/4-53-317 nor ModSum IS4Q5300001 has been incorporated, this AD requires repetitive detailed inspections for cracking of the external surface of the fuselage skin in the area around the Number 2 antenna and discrepancies (cracks, deformation in the area of the bend radius, and broken rivets) of the support cleats at stringers 32S and 33 between stations X71.8 and X94.8; replacement of all eight cleats with newly fabricated cleats, if any cleat is discrepant; and reinforcement of cracked fuselage skin. This AD also ultimately requires reinforcement of the Number 2 antenna support structure (and reinforcement of the fuselage skin around the Number 2 antenna, if not already done); the reinforcement actions terminate the repetitive inspections.

Difference Between FAA and TCCA Airworthiness Directives

The Canadian airworthiness directive refers to "detailed visual inspections" for various discrepancies. We have determined that these procedures constitute "detailed inspections." Note 1 in this AD defines this type of inspection.

Determination of Rule's Effective Date

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified under the caption ADDRESSES. All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Submit comments using the following format:

- Organize comments issue-by-issue. For example, discuss a request to change the compliance time and a request to change the service bulletin reference as two separate issues.
- For each issue, state what specific change to the AD is being requested.
- Include justification (e.g., reasons or data) for each request.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this rule must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2004-NM-11-AD." The postcard will be date stamped and returned to the commenter.

Regulatory Impact

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and that it is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC



U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2004-05-13 Bombardier, Inc. (Formerly de Havilland, Inc.): Amendment 39-13508. Docket 2004-NM-11-AD.

Applicability: Model DHC-8-401 and -402 airplanes, certificated in any category, serial numbers 4003 through 4076 inclusive, and 4078 through 4081 inclusive.

Compliance: Required as indicated, unless accomplished previously.

To prevent cracks in the lower fuselage skin due to fatigue damage in the vicinity of the Number 2 VHF antenna, which could result in rapid decompression of the airplane, accomplish the following:

Records Review

(a) Within the applicable compliance time specified in Table 1 of this AD, review the airplane maintenance records to determine if the airplane has been modified or repaired in accordance with Bombardier Repair Drawing RD8/4-53-317, Issue 2, approved December 13, 2002, or earlier issue; or Bombardier Modification Summary (ModSum) Package IS4Q5300001, Revision B, approved March 17, 2003, or earlier issue.

TABLE 1.—COMPLIANCE TIME FOR RECORDS REVIEW

If the total flight hours accumulated on the airplane, as of the effective date of this AD, is—	Then review the records—
≤1,450	Before the accumulation of 1,900 total flight hours.
>1,450 and ≤2,200	Within 300 flight hours after the effective date of this AD.
>2,200 and ≤3,000	Within 150 flight hours after the effective date of this AD.
>3,000	Within 50 flight hours after the effective date of this AD.

Follow-on Actions: Drawing/ModSum Incorporated

(b) If either Bombardier Repair Drawing RD8/4-53-317 or Bombardier ModSum IS4Q5300001, as specified in paragraph (a) of this AD, has been incorporated before the effective date of this AD: Do the terminating action required by, and at the time specified in, paragraph (d) of this AD.

Follow-on Actions: Drawing/ModSum Not Incorporated

(c) If neither Bombardier Repair Drawing RD8/4-53-317 nor Bombardier ModSum IS4Q5300001, as specified in paragraph (a) of this AD, has been incorporated before the effective date of this AD: Before further flight, do the actions specified in paragraphs (c)(1) and (c)(2) of this AD.

(1) Perform a detailed inspection for cracking of the external surface of the fuselage skin in the area around the Number 2 VHF antenna, in accordance with Bombardier Service Bulletin 84-53-32, Revision B, dated November 24, 2003. Use a 10X magnifying glass and appropriate lighting to do the inspection.

Note 1: For the purposes of this AD, a detailed inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

(i) If any crack is found: Before further flight, do the actions specified in paragraphs (c)(1)(i)(A) and (c)(1)(i)(B) of this AD.

(A) Repair in accordance with Bombardier Repair Drawing RD8/4-53-317, Issue 2, approved December 13, 2002.

(B) Replace all 8 support cleats, part number (P/N) 85307891, at stringers 32S and 33, between stations X71.8 and X94.8, in accordance with Repair Drawing RD8/4-53-328, Issue 1, approved December 13, 2002.

(ii) If no crack is found: Before further flight, do the requirements of paragraph (c)(2) of this AD.

(2) Do a detailed inspection to detect discrepancies (cracks, deformation in the area of the bend radius, and broken rivets) of the support cleats, P/N 85307891, at stringers 32S and 33, between stations X71.8 and X94.8; in accordance with Bombardier Service Bulletin 84-53-32, Revision B, dated November 24, 2003.

(i) If any discrepancy is found: Before further flight, remove the antenna and do a detailed inspection for cracks of the external surface of the fuselage skin underneath the antenna, in accordance with Bombardier Service Bulletin 84-53-32, Revision B, dated November 24, 2003. Use a 10X magnifying glass and appropriate lighting to do the inspection.

(A) If no crack is found: Before further flight, reinforce the fuselage skin around the Number 2 VHF antenna and replace all 8 support cleats with new cleats, P/N 85307891, at stringers 32S and 33, between stations X71.8 and X94.8. Do the actions in accordance with Bombardier ModSum IS4Q5300001, Revision B, approved March 17, 2003.

(B) If any crack is found: Before further flight, repair in accordance with Bombardier Repair Drawing RD8/4-53-317, Issue 2, approved December 13, 2002; and replace all 8 support cleats with new cleats, P/N 85307891, at stringers 32S and 33, between stations X71.8 and X94.8, in accordance with Bombardier Repair Drawing RD8/4-53-328, Issue 1, approved December 13, 2002.

(ii) If no discrepancy is found: Repeat the inspections required by paragraph (c)(1) of this AD at the following times, as applicable:

(A) If all 8 cleats have not been replaced: Repeat the inspections at intervals not to exceed 200 flight hours until accomplishment of the terminating action required by paragraph (d) of this AD.

(B) If all 8 cleats have been replaced: Repeat the inspections at intervals not to exceed 500 flight hours until accomplishment of the terminating action required by paragraph (d) of this AD.

Terminating Action

(d) Within 4,000 flight hours after the effective date of this AD, do the actions specified in paragraphs (d)(1) and (d)(2), as applicable, of this AD. Accomplishment of the applicable requirements of this paragraph terminates the repetitive inspections required by paragraph (c) of this AD.

(1) For all airplanes: Reinforce the Number 2 VHF antenna support structure in accordance with Bombardier ModSum 4-113458, Revision B-1, approved September 17, 2003. Bombardier Service Bulletin 84-53-32, Revision B, dated November 24, 2003, provides instructions for incorporating ModSum 4-113458.

(2) For airplanes on which neither Bombardier Repair Drawing RD8/4-53-317 nor Bombardier ModSum IS4Q5300001 has been incorporated: Reinforce the fuselage skin around the Number 2 VHF antenna in accordance with Bombardier ModSum IS4Q5300001, Revision B, approved March 17, 2003.

Alternative Methods of Compliance

(e) In accordance with 14 CFR 39.19, the Manager, New York Aircraft Certification Office (ACO), FAA, is authorized to approve alternative methods of compliance for this AD.

Incorporation by Reference

(f) Unless otherwise specified in this AD, the actions must be done in accordance with the Bombardier modification summary packages and repair drawings listed in Table 2 of this AD, as applicable. (The approval date of the repair drawings and modification summary packages appears only on the first page of these documents.)

TABLE 2.—APPLICABLE SERVICE DOCUMENTS

Document	Page number	Revision level shown on the page	Date shown on the page
Bombardier Modification Summary Package IS4Q5300001.	1–3, 6 4, 5	Revision B Revision A	March 17, 2003. December 22, 2002.
Bombardier Repair Drawing RD8/4–53–317	1, 2 3–5	Issue 2 Issue 1	December 13, 2002. December 11, 2002.
Bombardier Repair Drawing RD8/4–53–328	All	Issue 1	December 13, 2002.
Bombardier Modification Summary Package 4–113458 ..	All	Revision B–1	September 17, 2003.
Bombardier Service Bulletin 84–53–32	All	Revision ‘B’	November 24, 2003.

This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Bombardier, Inc., Bombardier Regional Aircraft Division, 123 Garratt Boulevard, Downsview, Ontario M3K 1Y5, Canada. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Westbury, New York; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Note 2: The subject of this AD is addressed in Canadian airworthiness directive CF-2003-28, dated November 28, 2003.

Effective Date

(g) This amendment becomes effective on March 25, 2004.

Issued in Renton, Washington, on February 25, 2004.
Kalene C. Yanamura,
Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.
[FR Doc. 04-4682 Filed 3-9-04; 8:45 am]
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